

REMARKS

The applicant appreciates the Examiner's thorough examination of the application and requests reexamination and reconsideration of the application in view of the preceding amendments and the following remarks.

Through the above amendments, the applicant has cancelled claim 34. The remaining claims remain unchanged.

The Examiner rejects claims 12, 16-21, 24 and 34 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 3,258,595 to *Galante* in view of Japanese Publication No. 06-141211 to *Sosoya* and U.S. Patent No. 6,532,037 to *Shimura*. The Examiner also rejects claims 13-14 and 22-23 under 35 U.S.C. §103(a) as being unpatentable over *Galante* in view of *Sosoya*, *Shimura* and U.S. Patent No. 4,794,575 to *Miller*, and claim 15 as being unpatentable over *Galante* in view of *Sosoya*, *Shimura* and U.S. Patent No. 5,973,733 to *Gove*. Independent claim 34 has been cancelled from the subject application and thus the rejection of claim 34 has been rendered moot.

Independent claim 12 of the subject application is directed to a photonic buoy system comprising a buoy including a lengthy hull with a ballast portion of the hull which resides below the waterline and a top portion of the hull which is disposed above the waterline, an optical bench including an imager within the top portion of the hull, the optical bench configured to provide a panoramic view of the horizon, a workstation remote from the hull, responsive to the optical bench, and including a display and image stabilization circuitry for presenting a composite image of the horizon on the display, and a transmission cable interconnecting the optical bench and the workstation.

The Examiner alleges that *Galante* discloses all of the elements of independent claim 12

except for the optical bench configured to provide a panoramic view of the horizon, a transmission cable extending from the bench for transmitting video signals to a remote location, and a workstation remote from the hull, responsive to the optical bench, and including a display and image stabilization circuitry for presenting a composite image of the horizon on the display. The Examiner further alleges that *Sosoya* and *Shimura* disclose the elements not present in *Galante* and that it would have been obvious to combine the elements of *Sosoya* and *Shimura* into the device of *Galante*.

The applicant submits that it would not have been obvious to include the transmission cable of *Sosoya* with the device of *Galante*.

The Examiner states in response to the applicant's previous Response that *Galante* never states that the photonic buoy system cannot use a transmission cable for communication with a remote control station. However, the applicant does not contend that *Galante* specifically states that a transmission cable cannot be used; the applicant contends that *Galante* teaches away from using a transmission cable as claimed by applicant.

*Galante* is directed to a remotely operated self-powered observation device including remotely controllable visual scanning means. The observation device of *Galante* utilizes laser communication means for relaying information back and forth between a submarine and the observation device. See Col. 3, lines 64-75 of *Galante*. *Galante* is replete with statements that the invention of *Galante* includes the use of a laser beam for communication with a remote station. For example, the disclosure of *Galante* clearly states that the device of *Galante* relates to "new and novel remotely controlled observation means, and more particularly to an observation means which is adapted for movement through water and which utilizes a laser beam for communication with a remote control station". (emphasis added) Col. 1, lines 9-13 of *Galante*.

*Galante* further states that:

[t]he present invention employs a novel communication system in the form of a laser means wherein a laser beam is utilized for transmitting signals from a remote control station to the apparatus of the present invention and vice versa. This particular type of communication means is advantageous in connection with combat operations in that the chance of interception or detection of the beam is substantially less than other types of communication systems now employed for communicating with various components which are submerged in water. (emphasis added) Col. 1, lines 62-71.

Additionally, *Galante* states that the invention of *Galante* can also be controlled from a ship traveling on the water, or "airplanes or other lighter than air craft traveling in the air over the area about the observation means" (emphasis added) Col. 1, lines 50-53 of *Galante*. Controlling the invention of *Galante* from an airplane would only be practical through use of the "novel communications system" disclosed in *Galante*. Connecting the *Galante* device by a transmission cable to the airplane would not be feasible, practical or logical.

Thus, it is clear that *Galante* is directed to, and solely discloses, the use of a laser beam for communication with a remote control station. *Galante* teaches away from the use of a transmission cable as claimed by the applicant in independent claim 12. The use of a transmission cable in *Galante* would run contrary to the main object of *Galante*, which is to utilize a laser beam for communication with a remote control station.

The Examiner is not permitted to base a rejection on part of a reference if other parts of the reference are necessary to fully appreciate the teaching of the reference:

It is impermissible within the framework of §103 to pick and choose from any one reference only so much as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art. See In re Hedges, 783 F.2d 1038, 228 USPQ 685, 687 (Fed. Cir. 1986) (citations omitted)

It is well established that "teaching away" by one reference is an important *indicium* of

non-obviousness. See, e.g., W.L. Gore & Assocs., Inc. v. Garlock, Inc., 721 F.2d 1540, 220 USPQ 303,311 (Fed. Cir. 1983) (in considering claims under §103, "the district court erred ... in considering claims in less than their entireties, i.e., in disregarding disclosures in the references that diverge from and teach away from the invention at hand") (with emphasis added).

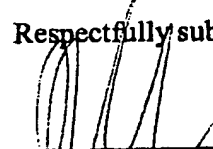
*Galante* unambiguously teaches the use of a laser beam for communication with a remote control station. *Galante* teaches away from a transmission cable extending from the optical bench for transmitting video signals to a remote location as claimed by the applicant. As noted above, *Galante* repeatedly refers to the advantages of using a laser beam for communication purposes over all other types of communication systems. Accordingly, the applicant submits that *Galante* clearly teaches away from the use of a transmission cable.

As *Galante* teaches away from the use of a transmission cable, it would not be obvious to one skilled in the art to combine the transmission cable of *Sosoya* with the device of *Galante*. Therefore, independent claim 12 and its respective dependent claims are patentable over the cited references.

Each of the Examiner's rejections has been addressed or traversed. Accordingly, it is respectfully submitted that the application is in condition for allowance. Early and favorable action is respectfully requested.

If for any reason this Response is found to be incomplete, or if at any time it appears that a telephone conference with counsel would help advance prosecution, please telephone the undersigned or his associates collect in Waltham, Massachusetts, at (781) 890-5678.

Respectfully submitted,

  
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